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BACKGROUND INFORMATION

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SALE OF ABRAMS TANKS TO  
SAUDI ARABIA

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## FOREWORD

President Bush has informed the Congress of his intent to sell Saudi Arabia 315 M1A2 Abrams tanks, along with support equipment, spare parts, ammunition, and training, in response to a request by the Saudi Arabian Government. It is United States policy to provide for the legitimate security and defense needs of our moderate Arab friends. This sale will demonstrate to the Saudi Government as well as to others in the region that the United States supports Saudi Arabia's reasonable, responsible efforts to improve its national security. It will enhance the deterrent value of Saudi forces that guard natural resources of critical strategic importance to the United States and the West. It will preserve the interoperability between Saudi and US forces that proved so valuable and successful during the Persian Gulf operations resulting from the Iran-Iraq War. It will reinforce the mutual trust and confidence that have existed between Saudi and American forces for 45 years. Finally, it will provide a \$3 billion boost on the export side of the US balance of payments ledger, tens of thousands of man-years of employment, and over \$680 million in savings and revenues to the US Treasury.

Saudi Arabia is determined to upgrade its armored forces to deter the very real threats in that dangerous part of the world. By proceeding with this sale, the United States will reap important strategic and economic benefits that would otherwise go to another foreign supplier.

The cooperation between the United States and Saudi Arabia during the Iran-Iraq War was the most recent proof that our relationship *has* been beneficial to America as well as to Saudi Arabia. We need to continue to build upon this successful cooperation and further strengthen this important relationship.

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## THE US-SAUDI RELATIONSHIP

### Shared Interests and Objectives

Saudi Arabia is a longtime friend of the United States with whom we have worked closely to achieve mutual objectives.

The United States has fundamental national interests in the stability and security of Saudi Arabia and the Gulf region. Saudi Arabia now provides 15 percent of our oil imports and has over a third of all the excess oil production capacity in the world. Its vast oil reserves will become increasingly important in the 1990s. A strong, confident Saudi Arabia will be able to provide for its own defense and contribute to broader stability throughout the Gulf region by deterring potential aggression.

The Saudis supported US diplomatic and military policies in the Persian Gulf during the war between Iran and Iraq. They have consistently supported our military presence in the Gulf, doing so with concrete assistance for our operations there. They have consistently stood firm in the face of radical Iranian activities.

Saudi Arabia is playing a leading role in Arab League efforts to bring peace to Lebanon, efforts the United States Government strongly supports. The Saudis want to see a negotiated settlement of the Arab-Israeli problem and were instrumental in Egypt's readmission to the Arab League with Egyptian ties to Israel intact.

We have worked together with Saudi Arabia to support the *mujahedin* in Afghanistan. The Saudi contribution was crucial to achieving the withdrawal of Soviet forces from Afghanistan.

The Saudis play a major role in the International Monetary Fund, the World Bank, the World Food Program, and other economic development programs of interest to the United States.

With the world's largest reserves of oil, the Saudis have an interest in being a stable, long-term supplier of oil to the West. Accordingly, they are a force for stable oil supplies and prices. US oil imports are increasing, a trend that is expected to continue. We therefore share with Saudi Arabia the need for stable prices and supplies and for the security and stability of the Gulf.

### The Defense Relationship

The US-Saudi defense relationship goes back more than four decades through the administrations of ten Presidents. King Abdul Aziz granted permission for Allied aircraft to overfly Saudi Arabia during World War II and for the United States to build an airfield at Dhahran, now a major Royal Saudi Air Force base. A close security relationship developed in the 1950s, with a mutual defense assistance agreement signed in 1951 and Saudi defense purchases

## The US-Saudi Relationship

from the United States beginning in 1955. Since that time, the United States has been Saudi Arabia's principal defense partner. Problems and instabilities in the region impressed on Crown Prince Faisal the need for a capable, modern defense force, and he set out to develop one with American advice and equipment when he came to the throne in 1964. In the succeeding two-and-a-half decades, close Saudi-American cooperation has made possible the development of a credible defensive force.

Although this relationship is not just a matter of hardware, defense sales have been at the heart of US-Saudi defense cooperation. This program of cash sales offers three major policy benefits to the United States.

- The equipment and training provided improve the Saudis' ability to defend themselves and, in cooperation with other members of the Gulf Cooperation Council, the region.
- Providing US-made materiel and teaching American military doctrine ensure that the United States and Saudi Arabia are able to operate together effectively in response to threats to mutual interests.
- The program provides a channel for communication and access with Saudi military and civilian officials at all levels.

The wisdom of this program was vividly demonstrated during the decade of the Iran-Iraq War, as US and Saudi armed forces cooperated extensively to deal with the threat to our common interests. The trust developed through the defense relationship was the foundation upon which this cooperation could be based. Defense equipment sold by the United States, particularly the F-15 Eagle fighter and the E-3A AWACS aircraft, enabled the Saudis to play a direct role in protecting themselves, US forces, and neutral shipping in the Gulf. Years of close contact between American and Saudi military personnel made it possible for them to operate together effectively. The close ties also led the Saudi Government to make major contributions to the logistic support of US operations.

A strong US-Saudi security partnership is key to maintaining close and effective relations. Unfortunately, this partnership has eroded in recent years as a result of US inability to respond to legitimate Saudi requests. The Saudis have therefore turned increasingly to other suppliers, who have moved eagerly to take over from the United States as Saudi Arabia's principal defense sales partner. It is not in the interest of the United States, Saudi Arabia, or Israel for us to be supplanted by other arms suppliers. Competing suppliers do not necessarily share the broader US policy objectives of a defense supply relationship, nor do they require the safeguards and assurances that go with every American defense equipment sale. Furthermore, replacement of American equipment with foreign equipment carries with it changes in specifications, training methods, logistic support philosophies, and operational doctrines that will make it more difficult for US and Saudi forces to operate together in defense of common interests.

*The US-Saudi Relationship*

Saudi Arabia is too important to the national interests of the United States to allow this trend to continue. We cannot allow our relationships with our friends in the Gulf to weaken and expect to rebuild them overnight should a threat arise to US interests.

## **THE ABRAMS TANK SALE: THE BASIS**

### **The Saudi Defense Challenge**

The rationale for selling the Abrams tank to Saudi Arabia is rooted in certain realities of the Saudi defense challenge. Saudi Arabia has an area of 816,000 square miles--roughly the size of the United States east of the Mississippi--and 2716 miles of land boundaries. Its major population and industrial centers are widely dispersed, with the principal concentrations being Riyadh, the Jeddah-Mecca-Taif area, and the Jubail-Dammam-Dhahran area on the Persian Gulf. Within its territory are more than one quarter of the world's proven oil reserves and the two holiest cities of Islam.

To defend this large area, the Saudis must draw on a relatively small population. The Saudi armed forces are therefore smaller than those of any of the major regional powers. Furthermore, the Saudis face threats from a variety of directions, complicating their defense task.

### **Armored Force Modernization and the Abrams Tank**

The present Saudi tank force is seriously in need of improvement. The majority of the force is made up of French-built AMX-30 tanks. This tank was designed thirty years ago and is obsolescent. The remainder of the tank force consists of US-built M60-series tanks in the A1 and A3 configurations. The M60A1 entered service with the US Army in 1962. The M60A3 is an upgraded version introduced in the late 1970s. The Saudis are in the process of modernizing their remaining M60A1s to A3s. While the M60A3 is a capable tank, its 105-millimeter gun cannot deal effectively with the most modern tank threat in the region.

No tank in the present Saudi armored force is capable of defeating the Soviet-built T-72 one-on-one. The T-72 is already in the Iraqi inventory in large numbers, while the Iranians are reportedly using T-72s captured during the war. The deterrent value of the present Saudi tank force is obviously declining as potential adversaries continue to improve and expand their own arsenals. The Saudis are both outgunned and outnumbered, as the table shows. They seriously need to upgrade their armored forces and they will.

There are several possible candidates to fill the Saudi requirement for a modern tank. In 1987, the M1A1 Abrams, the Brazilian Osório, the French AMX-40, and the British Challenger were evaluated in the Saudi desert. As a result of that test, the Saudis have expressed an interest in buying 315 Abrams tanks. The Abrams was designed specifically to be superior to the T-72. It would give the Royal Saudi Land Forces improved mobility over severe



| TANK FORCES OF THE GULF REGION |      |        |              |             |             |
|--------------------------------|------|--------|--------------|-------------|-------------|
|                                | Iran | Iraq   | Saudi Arabia | North Yemen | South Yemen |
| High Quality                   |      |        |              |             |             |
| T-72                           | few  | 400    |              |             |             |
| M60A3                          |      |        | 100          |             |             |
| Medium Quality                 |      |        |              |             |             |
| Chieftain                      | some | 100    |              |             |             |
| T-62                           | 150  | 1200   |              | 50          | some        |
| M60A1                          | some |        | 150          | 64          |             |
| T-55 Type                      | some | 3500 + |              | 450         | some        |
| AMX-30                         |      |        | 300          |             |             |
| Low Quality                    |      |        |              |             |             |
| M47/M48                        | some |        |              |             |             |
| Scorpion                       | some |        |              |             |             |
| PT-76                          |      | 200    |              |             |             |
| T-54                           |      | 100    |              | 136         | some        |
| T-34                           |      |        |              | 100         |             |
| TOTAL                          | 1100 | 5500 + | 550          | 500         | 470         |

Source: Jaffe Center for Strategic Studies, *The Middle East Military Balance, 1987-88*

terrain, advanced fire control technology to offset their numerical disadvantage, enhanced crew survivability, and a reliable, maintainable tank that would optimize the use of their technically trained soldiers. The Abrams tank proposed for sale to Saudi Arabia is a version of the M1A2 adapted to meet Saudi Arabia's peculiar requirements. The difference between the M1A1 and the M1A2 is described on pages 12-13.

## THE ECONOMIC IMPACT

### Income and Employment

The cash sale of 315 M1A2 tanks to Saudi Arabia would have important economic benefits for the American economy, particularly in the communities where the Abrams tank, its components, and the support equipment included in the sale are produced. According to the prime contractor's latest estimates, the tank and its basic support alone (which make up less than half the value of the sale) would generate over \$940 million in direct income and almost the same amount of indirect income, for a total increase in national income of more than \$1.8 billion.\* This part of the package offers nearly 33,000 man-years of direct employment opportunities and 24,000 man-years of indirect employment opportunities. Again, these totals do not include additional income and employment from the sale of ancillary equipment and additional support and services that are included in the proposed package.

Altogether, 40 states would see economic benefits, with the greatest impact in Michigan, Connecticut, Ohio, California, and Indiana. Each of these five states would receive more than \$100 million in income and more than 3,000 man-years of employment. A table showing the main beneficiaries of the sale is provided at the end of this section. The sale should be especially important to Michigan and Ohio, where the declining US defense budget has required that consideration be given to closing one of the two plants producing the M1-series tank (Warren and Lima). A Saudi sale combined with US Army procurements could generate enough work to operate both plants economically.

As with all other elements of the US defense supply relationship with Saudi Arabia, sales of the M1A2 tanks will be on a cash basis.

### Effect on the Federal Budget

The US Government would realize at least \$680 million in savings and revenues from the sale of the tanks alone. The Army would see savings in its own tank procurement program of more than \$150 million over a five-year period. Saudi Arabia would pay the US Treasury its fair share of the nonrecurring research and development and production costs the Army has incurred in the Abrams tank program, amounting to some \$75 million. In addition, the Saudis would pay the Treasury \$62 million for the use of the US Government-owned plants and equipment used to produce the tanks. Finally, federal tax revenues are estimated at \$395 million.

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\* "Indirect income" refers to economic activity generated as manufacturers and their employees spend a portion of the income directly coming from the sale. The Bureau of Labor Statistics estimates that every dollar of direct income generates an additional 96¢ in indirect income. The distinction between direct and indirect employment is similar, except that the multiplier is 0.75 rather than 0.96.

No part of this sale will be financed by the American taxpayer. Saudi Arabia receives no US Government financial assistance of any kind, military or economic, grant or credit.

### **Long Term Consequences**

The Saudi Abrams tank will have an operational life of 20 to 30 years. During this period, the tanks will incur operating and support costs that are not included in the package now under consideration. These costs include such items as training, ordnance, depot maintenance, replenishment of spares, and modification kits. There will probably also be a significant number of American technicians required to support the tanks in the Kingdom for at least their first several years in service. Should the Abrams tank be sold to Saudi Arabia, the United States can reasonably expect the lion's share of these support sales for the next two to three decades. In addition, the Saudis typically look to the suppliers of major weapon systems to take the lead in designing and constructing any facilities required to support them. While these follow-on economic benefits are difficult to estimate, they will clearly be substantial.

Sale of the Abrams to Saudi Arabia will also be likely to have a ripple effect on tank sales elsewhere. Other members of the Gulf Cooperation Council, such as Kuwait and the United Arab Emirates, may soon be selecting new equipment for their armies. Other countries will also be in the market for a new tank in the near future. A Saudi purchase of Brazilian Osórios or British Challenger IIs in lieu of the M1A2 could turn either of those tanks into an economically viable competitor for the large international tank market.

## The Economic Impact

### MANUFACTURER'S MOST RECENT ESTIMATES OF TOTAL ECONOMIC BENEFITS OF THE SAUDI TANK SALE (TANK ONLY) (With Major Suppliers)

| STATE   | TOTAL INCOME    | TOTAL EMPLOYMENT   |
|---|-----------------|--|
| ALABAMA   | \$13.9 million  | 434 man-years  |
| CALIFORNIA<br>Hughes Aircraft, El Segundo<br>Rangefinder  | \$124.5 million | 3,899 man-years  |
| CONNECTICUT<br>Textron Lycoming, Stratford<br>Engine  | \$209.9 million | 6,559 man-years  |
| GEORGIA   | \$37.8 million  | 1,181 man-years  |
| ILLINOIS  | \$30.8 million  | 961 man-years  |
| INDIANA<br>GM-Allison, Indianapolis<br>Transmission   | \$121.7 million | 3,803 man-years  |
| MASSACHUSETTS   | \$11.0 million  | 343 man-years  |
| MICHIGAN<br>General Dynamics, Troy<br>Land Systems Division Headquarters<br><br>Cadillac-Gage, Warren<br>Turret Drive | \$387.7 million | 12,115 man-years<br>General Dynamics, Warren<br>Tank<br><br>General Dynamics, Sterling Hts<br>Electrical Equipment |
| NEW JERSEY<br>Singer-Kearfott, Clifton<br>Datalink  | \$34.9 million  | 1,090 man-years  |
| NEW YORK<br>Watervliet Arsenal<br>Gun Barrel  | \$50.4 million  | 1,573 man-years  |
| OHIO<br>General Dynamics, Lima<br>Tank  | \$148.4 million | 4,636 man-years  |
| OKLAHOMA  | \$7.6 million   | 238 man-years  |
| PENNSYLVANIA<br>General Dynamics, Scranton<br>Suspension  | \$49.2 million  | 1,537 man-years  |
| SOUTH CAROLINA  | \$11.2 million  | 348 man-years  |
| TEXAS   | \$61.5 million  | 1,776 man-years  |

## THE SALE AND ISRAEL

Israel enjoys a substantial military advantage over any foreseeable combination of hostile forces in the region. The sale of 315 tanks to Saudi Arabia will not materially reduce this advantage, which the United States is committed to preserving.

Israel's military advantage is more than a matter of comparing numbers of tanks. Several other important factors must be considered.

The first is Israel's proven ability to use its forces effectively. Modern warfare requires close cooperation between air and ground forces and between diverse branches of any army. The Israeli Defense Forces are excellent in this regard. Furthermore, Israel has the intelligence, logistics, and command, control and communications (C<sup>3</sup>) capabilities to respond quickly and effectively to any threat. These skills are the true source of Israel's qualitative edge to a much greater extent than mere numbers of hardware.

Secondly, it would be exceedingly difficult for Saudi Arabia to attack Israel, even if it were so inclined. Saudi armored forces have always been deployed defensively, dispersed throughout the Kingdom, to face potential threats from different directions. They are not postured, equipped, or trained to deploy rapidly across country, and therefore cannot easily mass to pose a threat to Israel. The mountainous terrain of northwestern Saudi Arabia and the very difficult mountains of southern Jordan through which the tanks would have to pass (there is no common Israeli-Saudi border) are extremely ill-suited to tank warfare. Given the almost total absence of roads in those areas and the resulting choke points, the Israeli air force would have little difficulty dealing with any attempt to attack Israel from that direction.

It is important to note that Saudi Arabia is committed to a peaceful solution to the Arab-Israeli conflict. The Saudis actively pressed for Egypt's readmission to the Arab League with the Egyptian-Israeli treaty intact. Saudi armed forces have not been used offensively since the unification of the Kingdom in the 1920s and 30s.

### The United States, Israel, and Saudi Arabia

The United States and Israel have a close and mutually advantageous strategic relationship. An important basic aspect of this relationship is the broader US ability to work closely and effectively with moderate Arab countries in the region like Saudi Arabia. Our relations with Israel and with the moderate Arab countries are not mutually exclusive but rather mutually supportive in our pursuit of peace and stability in the region.

Finally, the United States puts strict conditions on all its arms sales restricting their use for other than self-defense and prohibiting their transfer to third countries without US consent. The Saudis have an excellent record of honoring their commitments to protect American materiel and technology from unauthorized transfer or disclosure. The other countries that offer ad-

*The Sale and Israel*

vanced military equipment do not always place such conditions on their sales, nor do they share the United States' firm commitment to Israeli security.

## TECHNICAL INFORMATION

### Composition of the Saudi Package

The proposed Abrams tank package for Saudi Arabia consists of:

|  |                   |
|--|-------------------|
| ● 315 M1A2 tanks<br>(with ancillary equipment) | \$1,148.1 million |
| ● 30 M88A1 tank recovery vehicles              | \$45.0 million    |
| ● 175 M998 utility trucks (HMMWV)              | \$7.0 million     |
| ● 224 heavy tactical trucks (HEMTT)            | \$35.0 million    |
| ● 29 heavy equipment transporters (HET)        | \$8.5 million     |
| ● 268 five-ton trucks                          | \$18.3 million    |
| ● Spares and support equipment                 | \$904.9 million   |
| ● Contractor logistics support                 | \$369.2 million   |
| ● Ammunition                                   | \$300.0 million   |
| ● Facilities design and construction           | \$142.9 million   |
| ● Training aids and devices                    | \$79.8 million    |
| ● U.S. military training services              | \$7.2 million     |
| ● Program management office                    | \$6.3 million     |

|                    |                          |
|--------------------|--------------------------|
| <b>GRAND TOTAL</b> | <b>\$3,072.2 million</b> |
|--------------------|--------------------------|

### M1A2 Tank

The M1A2 is a 68½-ton main battle tank with the mission of defeating enemy forces using firepower, movement, and shock action. It is a fully tracked vehicle possessing armor protection, shoot-on-the-move capability, and a high degree of maneuverability and tactical agility. It provides its four-man crew with the capability to engage enemy ground targets with a variety of accurate point and area fire weapons.

The M1A2 is manufactured at Warren, Michigan, and Lima, Ohio, by General Dynamics Land Systems. Major components of the tank are also produced at Warren, as well as at Sterling Heights, Michigan; Scranton, Pennsylvania; Stratford, Connecticut; Indianapolis, Indiana; El Segundo,

## Technical Information

California; and Watervliet, New York. The first production tank of the M1 series was completed in 1980 and the first production M1A1 in 1985.

The M1A2's firepower is a function of its weapon system, sights and vision systems, fire control, and stabilization. The 120 mm gun is used to engage tanks and infantry combat vehicles. The secondary armament consists of one .50 caliber and two 7.62 mm machine guns. The three machine guns are intended for use against troops and low-flying aircraft; the .50 caliber machine gun can also be used against lightly armored vehicles. The 7.62 mm gun is produced by FN Manufacturing of Columbia, South Carolina, and the .50 caliber gun by Saco Defense Systems Corporation of Saco, Maine.

Line-of-sight stabilization gives the M1A2 a highly accurate fire-on-the-move capability. A digital ballistic computer provides quick aiming correction based on automatic and manual inputs such as wind velocity, vehicle cant, and gun tube deflection. The thermal-imaging sight improves target acquisition under all weather and visibility conditions. A laser rangefinder provides accurate target distance data for the ballistic computer.

The M1A2 tank is driven by a 1500-horsepower diesel-powered gas turbine engine, an automatic transmission, and two final drives. This power plant provides high speed to minimize exposure and quick acceleration for evasive maneuvers. Top speed is regulated to 43 mph on hard surface roads. The M1A2 has advanced torsion-bar, long-stroke rotary shock-absorber suspension, enabling the tank to move over cross-country terrain at speeds up to 33 mph.

Survivability is the most essential characteristic of the Abrams tank. Crew survivability is enhanced by compartmented storage of fuel and ammunition. The crew and engine compartments are protected by an automatic fire extinguisher system. The probability of visual detection is decreased by the tank's low silhouette and reduced noise signature. External smoke grenade launchers and integral engine smoke generators provide rapid concealment.

The M1A2 is the next generation of the Abrams tank. It will be an improved version of the M1A1 now in production, containing the following proposed upgrades:

- *Appliqué armor* added to protect the tank against future Soviet-made weapon systems.
- A *commander's independent thermal viewer (CITV)* enables the tank commander to acquire new targets in the dark while the gunner is engaging others. The CITV also permits the commander to hand-off targets for the gunner to engage independently.
- An *improved commander's weapon station* provides improved visibility and ballistic protection, an enlarged hatch, and protection against directed energy weapons.



- *Position-navigation system* improves position location, heading reference, and range and bearing to waypoints.
- A *carbon dioxide laser rangefinder* provides an improved all-weather target engagement capability, improved safety for friendly troops, and range calculations rapid enough to engage helicopters.
- A *systems integration package* consolidates operational functions to reduce the burden on the crew.

The Saudi version of the M1A2 will differ somewhat from the version produced for the US Army. Some modifications will be made to meet the Royal Saudi Land Forces' peculiar environmental needs or for interoperability with other Saudi equipment. In addition, the Saudis may elect to purchase several items that the US Army has decided against installing in its own M1A2s, such as:

- a *driver's thermal viewer* to enable the driver to see through smoke, fog, and dust and to drive in darkness.
- an *inter-vehicle information system*, allowing improved communication between tanks.

Some items designed to meet the US Army's special needs may be omitted.

### **M88A1 Recovery Vehicle**

The M88A1 is a fully armored, fully tracked vehicle with the mission of providing recovery, maintenance and repair, and engineer support to armored forces. The 56-ton vehicle has a hydraulically powered blade at the front, a boom capable of lifting 20 tons, and two hydraulic winches. It carries a four-man crew. The vehicle is powered by a Teledyne Continental diesel engine and has a top speed of 30 mph. The M88A1 is already in service with over 20 countries, including Saudi Arabia, Oman, Kuwait, and Jordan. It is produced by BMV of York, Pennsylvania.

### **M998-series High Mobility Multipurpose Wheeled Vehicle (HMMWV)**

The HMMWV is, as its name suggests, a multipurpose vehicle which comes in numerous versions. Essentially, it is a militarized 4×4 light truck with a maximum payload of about 1½ tons. Its primary role in this sale will be to carry parts, other supplies, and personnel in support of Saudi armored units. The HMMWV seats a driver and three passengers in the front cabin. It is powered by a V-8 diesel engine and has a three-speed automatic transmission, power-assisted steering, and hydraulic disc brakes. Its top speed is 60 mph and it is capable of negotiating a 60% gradient, a 40% side slope, or a 22-inch vertical obstacle. The M998-series of vehicles is produced by AM General at South Bend, Indiana.

## Technical Information

### **M977-series Heavy Expanded Mobility Tactical Truck (HEMTT)**

The HEMTT is a ten-ton, 8×8 truck manufactured by the Oshkosh Truck Corporation of Oshkosh, Wisconsin. It is slightly more than 33 feet long and is powered by a V-8 diesel engine manufactured by Detroit Diesel. The HEMTT is capable of climbing a 60% gradient and can travel about 300 miles without refueling. The first production model of the HEMTT was delivered to the US Army in 1982. It will be provided in a mix of cargo, wrecker, and refueler versions.

### **M746 Heavy Equipment Transporter (HET)**

The HET is a 22½ ton, 8×8 prime mover manufactured by Ward LaFrance of Elmira Heights, New York. Its purpose is to haul a tank aboard a semi-trailer. The HET is powered by a 12-cylinder diesel engine made by Detroit Diesel and can travel approximately 200 miles without refueling. Its top speed is 38 mph. The 70-ton trailer to be sold in this package is produced at St. Louis, Missouri, by Southwest Mobile Systems.

### **M939-series 5-ton Truck**

The M939 is a 6×6, five-ton truck. The current version, the M939A2, is built by BMY Corporation at Marysville, Ohio. It is powered by a Cummins 6-cylinder diesel engine and equipped with an Allison five-speed transmission. The M939-series truck is used primarily for hauling cargo and personnel, but comes in other versions such as a van and an ambulance as well. Distinctive features of the truck are its built-in boom for tire replacement and the provision of connections for engine diagnostic equipment.

### **Spares and Support Equipment**

The package includes a three-year supply of spare parts to be delivered in several installments over the tanks' delivery period. The first installment will cover 18 months of average demand, with the other 18 months provided in later deliveries. The package also contains the maintenance and support equipment required to support the tank and the other items in the program.

### **Contractor Logistic Support**

About 300 contractor employees will work on this program within Saudi Arabia. They will participate in initial program surveys and provide training, maintenance, supply management, and related services.

## Facilities Design and Construction

Provision is made in the case for US Army Corps of Engineers services to design and construct training and maintenance facilities in support of the Abrams tanks.

## Ammunition

The package provides two years worth of training ammunition based on US Army training programs, plus a basic combat load of combat ammunition.

|  | (# of Rounds) |
|--|---------------|
| <u>120 mm Main Gun</u>   |               |
| M830 HEAT (high explosive antitank) (combat)                                   | 24,600        |
| APFSDS-T (armor piercing, fin-stabilized, discarding sabot- tungsten) (combat) | 51,000        |
| M831 TP-T (target practice-tracer)   | 17,010        |
| M865 TPCSDS-T (target practice, cone-stabilized, discarding sabot-tracer)      | 45,990        |
| <u>M2 Machine Gun</u>  |               |
| .50 cal combat   | 1,890,000     |
| .50 cal target practice  | 2,467,200     |
| <u>M240 Machine Gun</u>  |               |
| 7.62 mm combat   | 22,165,856    |
| 7.62 mm target practice  | 2,867,200     |

Ammunition for the 120 mm gun is produced by Honeywell at Brooklyn Park, Minnesota, and by Olin at Red Lion, Pennsylvania. Olin's Winchester Division at East Alton, Illinois, is the principal manufacturer of .50 cal and 7.62 mm machine gun ammunition.

## Training Aids and Devices

The package includes conduct-of-fire, gunnery, and maintenance simulators as well as the other materials needed to train the Royal Saudi Land Forces in the effective use and upkeep of the M1A2 tank and its components.

## US Military Training Services

This component of the package provides for reimbursement to the US Army for the costs of mobile training teams and technical assistance field teams sent to Saudi Arabia to support the sale.

## Technical Information

### **Program Management Office**

In any sale of this scope, it is normal practice to establish a program management office to ensure the smooth completion of the sale. The Saudi Arabian Government will bear the costs of this office.

## QUESTIONS AND ANSWERS

- How much military equipment has the US been selling Saudi Arabia?

— Since 1953, the United States has sold Saudi Arabia about \$50 billion worth of defense articles and services. Only a little over a tenth of that was weapons and ammunition. Over two-thirds of our sales were support services, such as construction, maintenance services, spare parts, and training. Construction alone accounted for more than a third, as the Saudis, with US assistance, have built from scratch a military infrastructure for a country the size of the United States east of the Mississippi River. Until the mid-1960s the Saudi military was a small force with outmoded equipment. In a relatively short time, they have had to develop forces capable of deterring the serious threats in their region and defending their oil reserves.

- How have the Saudis supported US strategic interests in the region?

— Saudi Arabia actively worked with the United States militarily and diplomatically to protect our mutual interest in keeping the Persian Gulf open and ending the Gulf War. For example, Royal Saudi Air Force AWACS and F-15 aircraft operated in conjunction with the US Air Force and Saudi naval vessels provided supporting patrols in Saudi waters. Saudi Arabia has been an influence for moderation in the region, supports a peaceful settlement of the Arab-Israeli dispute, and has worked closely with the United States to support the struggle against Communism in Afghanistan.

- Has Saudi Arabia contributed to Middle East peace efforts?

— Saudi Arabia supports a peaceful resolution of the Arab-Israeli dispute. In the 1981 Fahd Plan, the Saudis called for a "just settlement" based on principles which included "recognition of the right of all the states in the region to live in peace." The Saudis have worked to have these principles accepted or reaffirmed by the Arab summit conferences at Fez, Algiers, and Casablanca.

- Isn't the real threat to Saudi Arabia internal instability and not external aggression?

— The Kingdom of Saudi Arabia faces very serious outside threats. The defense equipment we supplied to the Saudis in the early 1980s has been successfully employed to deter Iranian aggression and pressure. The Gulf War showed just how dangerous a neighborhood the Saudis live in. There has been no serious internal threat to Saudi authority since the Kingdom was unified in 1932. Saudi Arabia has weathered Iranian attempts at subversion, the 1979 Mecca incident, and the collapse of world oil prices with remarkable ease. The Kingdom is one of the most stable countries in the Middle East.

## Questions and Answers

- Hasn't Saudi Arabia kept oil prices artificially high at the expense of American consumers?

— Saudi Arabia believes its long-term economic interests are best served by stable prices, not the wide swings of the 1970s and early 1980s. Saudi Arabia has sought to balance external demand for low prices with domestic demand for development and higher living standards. The Saudis have attempted to use their enormous production capacity to moderate price fluctuations.

- Is there any danger that this advanced weaponry will fall into the wrong hands? For instance, might the Saudis transfer their tanks to Syria or some other radical Arab country? What about terrorists, or Soviet spies?

— Every US arms sale contains a condition forbidding transfer of American equipment to any third party without US Government approval. The Saudis have an excellent record of honoring these requirements. They also have an excellent record of safeguarding American technology and the weapon systems we have sold them. Saudi security procedures are extremely tight and, for certain sensitive systems, the US has insisted on even more stringent precautions. Moreover:

- Syrian or other troops are not trained to operate or maintain the M1A2. It takes time for any army to learn to use such a piece of equipment. Neither the Syrians nor other radical Arab states would have access to spare parts, ammunition, support equipment, or maintenance facilities, or to the American technicians required to support the tanks.

- Terrorists have little use for anything so obvious as a tank, and it is most doubtful that they could find a four-man crew who would know how to operate it.

- There is no Soviet-bloc presence in Saudi Arabia. With Saudi Arabia's tight immigration and security procedures, there is little risk that Soviet agents could get their hands on M1A2 technology as a result of this sale.

- There were some newspaper advertisements in 1988 that the economic repercussions on the United States of the British arms deals with Saudi Arabia were minimal. Did we lose jobs as a result of the British sales?

— The British estimate that 25,000 to 30,000 British jobs were saved as a result of the \$7 billion "Al Yamamah I" Tornado fighter aircraft program established in 1985. The 1988 "Al Yamamah II" program was even bigger, reportedly as much as \$30 billion. While a US sale of equivalent equipment would not have exactly the same value, it would certainly be in the tens of billions of dollars, and every billion dollars in US foreign military sales is estimated to result directly in 35,000 man-years of employment. The US content of certain components of the Al Yamamah deals does generate some activity in the American economy, but direct US sales would have virtually 100% US content and generate much more employment than the small US content of the

British sales. Each Tornado fighter, for example, contains less than a half million dollars worth of American components.

- Are the Saudis honoring the assurances on the use of the AWACS we sold them in 1981?

— Yes. The Saudis are complying with the assurances, as Congress's General Accounting Office reported in October 1988.

- Is Iran really still a threat to Saudi Arabia now that its army has been weakened by its war with Iraq, a war that is now over?

— There is a cease-fire in the Iran-Iraq war but no peace settlement. While Iran's forces were weakened by the war, they are still more powerful than those of Saudi Arabia and are in the midst of a rebuilding program. Iran has a large population, a revolutionary religious orientation, and an avowed hostility to the Saudi ruling family.

- What about Iraq? Aren't they and Saudi Arabia friends?

— Saudi-Iraqi relations are good at present. However, the Iraqis, who have traditionally sought a predominant role in the Arab world, have often been at odds with the Saudis in the past. Iraq emerged from the war with Iran with a large, well-equipped, and battle-tested army.

- Is the Saudi military build-up directed against Israel?

— The Saudis have strengthened their military capabilities considerably since the 1970s in response to the dangers of the region in which they live. But this build-up has not given Saudi Arabia disproportionate military strength and it has not been directed at Israel. Saudi Arabia faces threats on many fronts. The most significant US sales since the mid-1970s have been used primarily to defend the Kingdom against threats from the east and south.

- Won't US sales of sophisticated weapons to Saudi Arabia enable the Saudi armed forces to play a major role in any future war against Israel?

— Saudi Arabia is publicly committed to peaceful resolution of the Arab-Israeli dispute. Its armed forces are trained, equipped, and deployed as a defensive force. Israel has and will continue to have a significant advantage over any foreseeable combination of hostile forces in the region.

- Just how much do the Saudis spend on defense? Is it true their defense budget is continuing to grow every year?

## Questions and Answers

— Saudi Arabia's defense budget has declined steadily in constant dollars since 1983 and in current dollars since 1985. According to the International Institute for Strategic Studies, the Saudi 1988 defense budget was \$13.57 billion. Only a small portion of this annual budget goes for investments in new weapons and facilities. As in most all-volunteer armed forces, the majority pays for military salaries and operations and maintenance costs.